





PROGRAM

- by sessions -







Contents

ORAL PRESENTATIONS	5
Plenary lectures	6
RS1 Algae	7
RS2 Climate change and freshwater ecosystems	8
RS3 Conservation	11
RS4 Ecological modelling	12
RS5 Ecotoxicology and stress responses	14
RS6 Fish (and other vertebrate) biology	16
RS7 Freshwater science in policy, management, monitoring and restoration	17
RS8 Wetlands, brackish and coastal ecosystems	20
RS9 Hydromorphology, hydrology, hydrogeology, hydrochemistry	21
RS10 Interspecies interactions	22
RS11 Invasive species	23
RS12 Karst	25
RS13 Lakes, reservoirs and ponds	26
RS14 Large rivers	28
RS15 Invertebrates	29
RS16 Macrophytes	31
RS17 Microbial ecology	32
RS18 Molecular ecology, phylogeny and evolutionary studies	33
RS19 Plankton	34
RS20 Surpassing aquatic boundaries	35
RS21 Streams	36
RS22 Taxomy and systematics	38
RS23 Urban freshwaters	39
SS1 Science and management of intermittent rivers and ephemeral streams: a European pe	rspective 40
SS2 Aquatic metacommunities: research and applications	43
SS3 Hydrology, biogeochemistry and ecology of mountain freshwaters	
SS4 10th UAMRICH (Use of algae for monitoring rivers and comparable habitats)	
SS5 Understanding cross-habitat linkages between stream and riparian zones to optimize n of biodiversity and ecosystem services	nanagement
SS6 Linking natural and social science in freshwater ecosystems	







SS8 From source to sea – characterization and utilization of organic matter from different sources along the aquatic continuum		
SS9 Research needs for European water and nature directives	52	
SS10 Balkan rivers, be dammed!	53	
SS12 Mesocosm approaches to ecosystem-scale questions in freshwaters	54	
SS13 Spring habitats: research, assessment tools and conversation efforts	55	
POSTER PRESENTATIONS	56	
PhD awardees	57	
RS1 Algae	58	
RS2 Climate change and freshwater ecosystems	58	
RS3 Conservation	58	
RS4 Ecological modelling	59	
RS5 Ecotoxicology and stress responses	59	
RS6 Fish (and other vertebrate) biology	59	
RS7 Freshwater science in policy, management, monitoring and restoration	60	
RS8 Wetlands, brackish and coastal ecosystems	60	
RS9 Hydromorphology, hydrology, hydrogeology, hydrochemistry	61	
RS10 Interspecies interactions	61	
RS11 Invasive species	61	
RS12 Karst	61	
RS13 Lakes, reservoirs and ponds	62	
RS14 Large rivers	62	
RS15 Invertebrates	62	
RS16 Macrophytes	63	
RS17 Microbial ecology	63	
RS18 Molecular ecology, phylogeny and evolutionary studies	64	
RS19 Plankton	64	
RS20 Surpassing aquatic boundaries	64	
RS21 Streams	65	
RS22 Taxomy and systematics	65	
RS23 Urban freshwaters	65	





SS1 Science and management of intermittent rivers and ephemeral streams: a European	perspective 66
SS2 Aquatic metacommunities: research and applications	66
SS3 Hydrology, biogeochemistry and ecology of mountain freshwaters	66
SS4 10th UAMRICH (Use of algae for monitoring rivers and comparable habitats)	67
SS5 Understanding cross-habitat linkages between stream and riparian zones to optimize of biodiversity and ecosystem services	_
SS6 Linking natural and social science in freshwater ecosystems	67
SS7 Linking habitat heterogeneity, biofilm diversity and biogeochemistry across spatioter	•
SS8 From source to sea – characterization and utilization of organic matter from different along the aquatic continuum	
SS9 Research needs for European water and nature directives	
SS10 Balkan rivers, be dammed!	68
SS12 Mesocosm approaches to ecosystem-scale questions in freshwaters	69
SS13 Spring habitats: research, assessment tools and conversation efforts	69







ORAL PRESENTATIONS

- by sessions -







Plenary lectures

Monday, July 1 (room: Crystal ballroom 1)

9.10

EU environment policy-related research needs for nature and water protection in Europe (Frank VASSEN)

Tuesday, July 2 (room: Crystal ballroom 1)

9.10

Dispersal and oviposition of aquatic insects: critical events that link terrestrial and aquatic phases of populations and influence population dynamics (Jill LANCASTER)

Thursday, July 4 (room: Crystal ballroom 1)

9.10

Relationships of multiple stressors and biological responses in freshwaters: Impact, scales and mechanisms (Daniel HERING)

Friday, July 5 (room: Crystal ballroom 1)

9.10

Migratory waterbirds as key vectors of dispersal for plants and invertebrates – case studies from Europe (Ádám LOVAS-KISS)





RS1 Algae

Monday, July 1 (room: Tuškanac)

10.30

Effects of artificial light at night on benthic primary producers in freshwaters (Maja GRUBIŠIĆ)

PhD awardee

10.45

Taxonomic shift over a phosphorus gradient affects the stoichiometry and fatty acid composition of stream periphyton (Alessandra IANNINO)

11.00

Functional response of the phytoplankton community towards changes in stratification in a large oligotrophic lake (Benedikt EHRENFELS)

11.15

Bioindication of the aquatic ecosystems status in Ukraine within the framework of European Water Policy (Olena BILOUS)





RS2 Climate change and freshwater ecosystems

Tuesday, July 2 (room: Panorama)

10.30

Influence of the paraglacial landscape along the river continuum in a deglaciating Alpine catchment (Stefano BRIGHENTI)

10.45

Climate-induced drivers shaping biodiversity of subarctic freshwater ecosystems (Jón S. ÓLAFSSON)

11.00

Structural and functional responses of macroinvertebrate communities to climate change in five Alpine streams fed by shrinking glaciers (Valeria LENCIONI)

11.15

Peculiarities of energy metabolism of northern populations of freshwater amphipoda as adaptation to climate variability (Nadezhda BEREZINA)

11.30

Long-term water temperature trends in Europe's fourth largest lake show recent and rapid warming in winter (Burak ÖĞLÜ)

11.45

Winter sheltering from a predator – importance of shelter quality (Eva BERGMAN)

13.30

Drivers of change and predictability of lake biological diversity in an age of climate change (Karan KAKOUEI)

13.45

The global sensitivity of lake phytoplankton communities to climate change (Ian JONES)

14.00

Eutrophication or climate change? Long-term decrease in the efficiency of trophic coupling between phytoplankton and zooplankton — A causality analysis (Géza B. SELMECZY)

14.15

Disentangling the impacts of changing mixed depth and water temperature on a modelled lake phytoplankton community (Emma GRAY)

14.30

The nutritional quality of phytoplankton influences the tolerance to extreme water temperatures in the waterflea *Daphnia magna* (Apostolos-Manuel KOUSSOROPLIS)

14.45

Multidecadal Trends in Hydrology, hydrochemical variables and phytoplankton in large shallow eutrophic Lake Võrtsjärv (Estonia) (Peeter NÕGES)





15.30

The climate crisis increases not only vertical and seasonal water temperature differences, but also irregular variabilities in a mountain lake (Georg H. NIEDRIST)

15.45

Initial steps in understanding the in-lake effects of floating solar (floatovoltaics) deployments; changes to the stratification and thermal dynamics (Giles EXLEY)

16.00

Impact of rising CO₂ concentrations on harmful cyanobacterial blooms – from cell to bloom dynamics (Jolanda M. H. VERSPAGEN)

16.15

CO₂ emission from lowland streams of the Pampean region (Argentina) (Claudia FEIJOÓ)

Thursday, July 4 (room: Crystal ballroom 1)

10.30

Do conventional and conservation agricultural management practices play an important role for CO_2 flux in summer paddy production of Myanmar? (Saw MIN)

10.45

Changes on river ecosystem functioning caused by dam operations (M.B. HOANG)

11.00

Warming bends the threshold elemental ratio in a homeostatic consumer (Thomas RUIZ)

11.15

Multiple stressors and river biofilms: a mesocosms approach to elucidate the impacts of global change on biodiversity – ecosystem function (Ferran ROMERO)

11.30

Integrating water quantity and quality in eco-hydrological relationships (Devanshi PATHAK)

11.30

Hydrology: key to restore lowland streams and mitigate climate change (Piet FM VERDONSCHOT)

13.30

Ecological consequences of current and future conductivity in German surface water under climate change (Trong Dieu Hien LE)

13.45

Catastrophic forest fires, global change, and water quality (Clifford N. DAHM)

14.00

Changes in the vegetation structure in a lake dominated by a rare charophyte, *Lychnothamnus barbatus*, in the light of climate change and human impact (Michał BRZOZOWSKI)





Moderate warming over the past 25 years has already reorganized stream invertebrate communities (Peter HAASE)

14.30

30 years of climate drying: impacts on Australian mediterranean-climate stream invertebrate communities and what European med-streams might expect in the future (Nicole CAREY)

14.45

The impact of drought on non-perennial river inundation patterns: a case study from the Nuwejaars River, Cape Agulhas, South Africa (Brigitte MELLY)

15.30

The effects of temperature during embryogenesis on juvenile fish: Atlantic salmon and brown trout in an altered climate (Larry GREENBERG)

15.45

Structural and functional long-term changes in large-river fish communities detected with a novel meta-analysis framework (Anthony MAIRE)

16.00

Colonization of benthic invertebrates in karstic spring area: a case study (Denis BUĆAN)





RS3 Conservation

Tuesday, July 2 (room: Maksimir)

15.45

Feeding and habitat preferences in streams of the endemic New Zealand freshwater mussel (kākahi – Echyrydella sp.) and insights into translocation (Channell THOMS)

16.00

Combining species distribution model and conservation planning software to assess the suitability of an existing protected river network (Mathieu FLOURY)

16.15

A flexible spatial approach to integrate floodplain and upstream catchment connectivity in spatial planning (Vanessa REIS)

16.30

Conservation status of Chirocephalus marchesonii Ruffo & Vesentini, 1957 in the Pilato Lake (Sibillini Mountains National Park, Central Italy) (Antonella CAROSI)

16.45

Successful reintroduction of macroinvertebrates in a restored lowland stream (Ralf **VERDONSCHOT)**





RS4 Ecological modelling

Monday, July 1 (room: Zrinjevac)

10.30

Use the past to predict the future – on the use of historical data to validate species distribution models (Martin FRIEDRICHS)

10.45

Water quality and macrophytes in the Danube River: ANN modelling (Dušanka CVIJANOVIĆ)

11.00

Three-dimensional modelling and satellite remote sensing for assessing the water quality of a Mediterranean Reservoir (Najwa SHARAF)

11.15

Quantifying projected effects of global change on riverine phytoplankton species richness (Yueming QU)

11.30

The conceptual and empirical nature of freshwater macrosystem research (James H. THORP)

11.45

Effects of landscape permeability on dispersal and colonization of a aquatic insect – a modeling approach (Lucas STREIB)

13.30

Disentangling the influence of climate and hydrological predictor variables on benthic macroinvertebrate distribution (Katie IRVING)

13.45

Mechanistic versus empirical models: experience with macroinvertebrates in streams (Nele SCHUWIRTH)

14.00

Effects of site selection and taxonomic resolution on the inference of stream invertebrate responses to environmental conditions (Bogdan CARADIMA)

14.15

Modelling robustness of habitat networks against stress (Henriette HEER)

14.30

Modelling the synergy of multiple stress effects (Matthias LIESS)

Do urban multi-stressors and their effects on stream biota shift during droughts? (Ian R. WAITE)

15.30

Modelling the food web structure of a large shallow lake (Upendra BHELE)







Automated calibration strategies in ecological modelling using high-frequency in situ data (Francesco PICCIONI)

16.00

What catchment-lake relationships reveal about organic carbon budget: insights from Estonian lakes (Fabien CREMONA)

16.15

Modelling accretion dynamics and C sequestration in coastal agrosystems under sediment deficit (Maria BELENGUER-MANZANEDO)

16.30

Quantifying the contribution of cattle access to stream nutrient loading using real-time data and a modelling approach (Eleanor JENNINGS)

16.45

Extreme events and community resilience in lakes: testing the concept with a phytoplankton model (J. Alex ELLIOTT)





RS5 Ecotoxicology and stress responses

Monday, July 1 (room: Crystal ballroom 2)

10.30

Multiple stressors interacting on ecological processes in Dutch drainage ditches (Gea VAN DER LEE)

10.45

Multi-stressor's effects on contamination and toxicity in French streams using ecotoxicological indicators based on caged gammarids (Noëlle SARKIS)

11.00

Can microbial functions mediate the impact of multiple stressors on regime shift in lake ecosystems? (Joey ALLEN)

11.15

Biological responses of Prussian carp (*Carassius gibelio*, Bloch 1782) to the impact of industrial wastewaters in the Ilova River (Tatjana MIJOŠEK)

11.30

Investigating the behavioural and physiological response of endangered freshwater pearl mussels to stress exposure (Edward Andrew Morten CURLEY)

11.45

Locomotor and cardiac responses of crayfish exposed to simulated predation risk at environmental concentration of methamphetaminental concentration of methamphetamine (Filip LOŽEK)

13.45

Linking exposure of pesticides to ecological effects in small streams (Matthias LIESS)

14.00

Pesticide pollution increases the risk of infection with schistosomiasis (Jeremias BECKER)

14.15

Impact of two herbicides on "classical descriptors" and fatty acid profiles of the freshwater diatom *Nitzschia palea* (Floriane DEMAILLY)

14.30

Linking benthic diatom community metrics to stream pesticide contamination (Floriane LARRAS)

14.45

Standartox – a tool for assessing the risk of chemicals (Andreas SCHARMÜLLER)

15.30

Into the freshwaters and back: transfer of emerging contaminants through the aquatic-terrestrial habitat linkage (Ana PREVIŠIĆ)





Tackling chemical and n-chemical stress in running water ecosystems: Lessons learned from a longitudinal approach (Markus WEITERE)

16.00

Contaminated leaf litter reduces shredder growth but increases decomposition (Eva LIMA-FERNANDES)

16.15

Agricultural run-off-induced regime shift in aquatic phototrophic communities changes with elevated temperature (Bastian H. POLST)

16.30

Effects of complex micropollutant mixtures on benthic invertebrates (Jochen BECKER)

Tuesday, July 2 (room: Crystal ballroom 2)

10.30

Sublethal effects of micropollutants from wastewater treatment plants in benthic invertebrates – a field study (Jacqueline KASCHEK)

10.45

Microplastics in caddisfly larval cases: first evidence of freshwater microplastics incorporated into larval constructions (Sonja M. EHLERS)

11.00

Influence of mixture of microplastic particles (MP) on n-biting midges of *Chironomus riparius* in laboratory setup (Jelena STANKOVIĆ)

11.15

Evaluation of Cerium-oxide (CeO₂) nanoparticle toxicity to freshwater midge *Chironomus riparius* (Diptera, Chironomidae) – potential biomarkers (Dimitrija SAVIĆ-ZDRAVKOVIĆ)

11.30

Responses of lower trophic level consumers to an addition of silver nanoparticles: A whole lake ecosystem approach (Katarina CETINIĆ)

11.45

Why are mayflies sensitive to salinity? (Ben KEFFORD)

13.30

Evaluating the impacts of treated and untreated hypersaline effluents from abandoned mines on freshwater ecosystems (Lidia VENDRELL PUIGMITJÀ)

13.45

Cellular energy allocation in stygophilous amphipod *Synurella ambulans* from the hyporheic zone of the Sava River (Zuzana REDŽOVIĆ)





RS6 Fish (and other vertebrate) biology

Thursday, July 4 (room: Ouverture)

10.30

Reliability analysis of fish life-history traits reveals discrepancies among databases (Carlos CANO-BARBACIL)

10.45

Scavenging behaviour of black bullhead (Ameiurus melas) (Bálint PREISZNER)

11.00

Effect of the parasite *Ligula pavlovskii* on the life history traits of the monkey goby (*Neogobius fluviatilis*), an invasive benthic fish in Lake Balaton (Hungary) (Nóra BOROSS)

11.15

Isotopic evidence for multi-decadal shifts in trophic ecology of the long-lived Australian lungfish (Mark KENNARD)

11.30

Fish muscle quality drops during spawning – seasonal changes in fatty acid composition of salmonid fish in a subarctic lake (Ossi KEVA)

11.45

Selective retention of algal polyunsaturated fatty acids along stream food webs and within fish organs (Nadine EBM)

13.30

The effect of hydropower plant on fish stocks in two glacier-fed rivers in East Iceland (Ingi Runar JONSSON)

13.45

Evolutionary history of endemic fish species facilitating their survival in changing environments – a case study on genus *Telestes* in Croatia (Ivana BUJ)

14 00

Past, present and future of trouts in Žumberak-Samoborsko gorje Nature park (Lucija IVIĆ)

14.15

Population genetic structure of Salmo farioides (Ana TOMAŠIĆ)





RS7 Freshwater science in policy, management, monitoring and restoration

Tuesday, July 2 (room: Opera)

13.45

A framework for automated anomaly detection in high frequency water-quality data from in situ sensors (Catherine LEIGH)

14.00

Twenty-five years of investments in water quality: An evaluation of the chemical and biological water quality of a lowland stream in the Zwalm River basin (Belgium) (Pieter BOETS)

14.15

The River Ecosystem Service Index (RESI) (Martin PUSCH)

14.30

Challenges in linking water contamination, its impacts on freshwater biota and the consequences for ecosystem services delivery (Mary KELLY-QUINN)

14.45

Non-native species and biomonitoring procedures: implications and new challenges for biotic indices calculation and reliability in river ecosystems (Simone GUARESCHI)

15.30

Correspondance of taxonomic and functional trait biodiversity with natural flow regime classification (Cássia ROCHA POMPEU)

15.45

Effects of flow regime regulation on river habitats, riparian vegetation and fish and macroinvertebrate communities in a Pyrenean river (Catalonia, NE Iberian Peninsula) (Maria Isabel GONZÁLEZ PÉREZ)

16.00

Macroinvertebrates, an important tool in bioassessment and water bodies classification strategy (Marina ŠUMANOVIĆ)

16.15

Interaction between regional and local scale habitat quality in shaping benthic invertebrate communities — Implications for stream restoration practice (Stefan STOLL)

16.30

Hydromorphological river restoration: Does it work? Could we reach reference conditions? (Marlène ROLAN-MEYNARD)





Thursday, July 4 (room: Panorama)

10.30

Effects of dam decommissioning on stream biodiversity and ecosystem functioning (Miren ATRISTAIN)

10.45

Vertical distributions of limnological variables and water column stability in a regulated river (Nakdong, South Korea) (Eunsong JUNG)

11.00

Learning by doing in river restoration: easy to say, but difficult to apply (Lucie SPRECHER)

11.15

Catchment water quality in the first year immediately following and preceding restoration of a drained afforested blanket bog (Paul P.J. GAFFNEY)

11.30

Riparian forest succession in a river island after a restoration project of replacing a poplar plantation (Sorral island, Ter river, Catalonia, NE Iberian Peninsula) (Marc ORDEIX)

11.45

Effect of river restoration on life strategies in fish communities (Alessandro MANFRIN)

13.30

Population structure of brown trout (*Salmo trutta*) and its relationship with environmental factors and macroinvertebrate biomass and diversity in a Mediterranean stream (Marc ORDEIX)

13.45

The potential of long term fish removal in eutrophic lakes? (Ilkka SAMMALKORPI)

14.00

Effects of habitat limitation on common barbel (*Barbus barbus*) recruitment – a probabilistic approach based on an age-structured population model (David FARÒ)

14.15

Assessment of the degree of fragmentation in Irish river catchments (Siobhán ATKINSON)

14.30

Accounting for uncertainty in defining a fishery's safe operating space (SOS) (Gideon GAL)

15.30

Challenges and opportunities for rehabilitation of streams in a rapidly changing country (Yaron HERSHKOVITZ)

15.45

Urban runoff overflows – an important obstacle in recovery projects of reservoirs (Jindřich DURAS)







An ounce of prevention is worth a pound of cure: Managing macrophytes for nitrate mitigation in canal networks (Giuseppe CASTALDELLI)

16.15

The food-web perspective in multiple-stressor research and management (Andreas BRUDER)





RS8 Wetlands, brackish and coastal ecosystems

No oral presentations. See poster presentations.





RS9 Hydromorphology, hydrology, hydrogeology, hydrochemistry

Tuesday, July 2 (room: Opera) 11.30

Hydromorphological monitoring of rivers in Croatia – main issues and problems (Ivan ČANJEVAC)





RS10 Interspecies interactions

Monday, July 1 (room: Tuškanac)

14.00

Parasitism affects the biodiversity-functioning relationship (André FRAINER)

14.15

Thermal factor in digenean larvae transmission success (Elżbieta ŻBIKOWSKA)

Potamopyrgus antipodarum (Gray, 1843) as a potential biological control agent for swimmers' itch (Anna MARSZEWSKA)

14.45

Non-native molluscan hosts and their parasites (Trematoda: Digenea, Aspidogastrea) in Poland (Anna CICHY)

15.30

Shallow lake multitaxonomic diversity: relative influence of environmental and biotic relationships (Aurélien JAMONEAU)

15.45

Model-based analyses of fish data provide empirical evidence for strong effects of species interactions on community composition in lakes (Thomas MEHNER)

16.00

Trait based zooplankton selection of small whitefish (Coregonus wartmanni) and invasive threespined stickleback (Gasterosteus aculeatus) (Žiga OGORELEC)

16.15

Gammarus fossarum determines species composition of macroinvertebrate communities: evidence from a three-level experiment (Vít SYROVÁTKA)

16.30

What doesn't kill you, makes you stronger: Frequency of chronic predation risk determines changes in physiology of aquatic prey (Łukasz JERMACZ)

16.45

Metabarcoding as a tool to determine feeding behavior – is the European pond turtle a threat for other endangered species? (Charlotte DUCOTTERD)





RS11 Invasive species

Tuesday, July 2 (room: Maksimir)

10.30

Does the invasional meltdown exist in the exotic Ponto-Caspian community in Europe? (Jarosław KOBAK)

10.45

Exotic freshwater fish invasions – dynamics and effects (Marco MILARDI)

11.00

Round goby vs. marbled crayfish – some notes to interactions between two important invaders (Sara ROJE)

11.15

Is there a positive effect of an invader? Recognition of heterospecific alarm cues between an alien Ponto-Caspian goby and a coexisting native cyprinid fish (Tomasz KAKAREKO)

11.30

Ecological impact of the round goby *Neogobius melanostomus* (Pallas, 1814) towards hard-bodied benthic prey in dependence upon its type, ratio and density: functional response in lab (Pavel FRANTA)

11.45

The role of human in the distribution of *Phoxinus* (Cyprinidae): tracking introduction pathways and first molecular evidences of the European minnow in the Douro Basin (Iberian Peninsula) (Aina GARCIA-RAVENTÓS)

13.30

Habitat use of invasive monkey goby and pumpkinseed in Lake Balaton (Hungary) (István CZEGLÉDI)

13.45

Double threat – can global warming increase physiological cost of antipredator response of native and invasive gammarids? (Katarzyna KRZYŻYŃSKA)

14.00

Distribution and ecology of peracarid crustaceans in the River Danube – insights from the 3rd Joint Danube Survey (Péter BORZA)

14.15

Possible roles of killer shrimp (*Dikerogammarus villosus*) in relation to invasive crayfish (Miloš BUŘIČ)

14.30

Riverbank burrowing by signal crayfish (*Pacifastacus leniusculus*): quantifying rapid behavioural change in native and invasive populations (Harry SANDERS)







Can season and parasite infestation change the behaviour of zebra mussels? (Anna DZIERZYNSKA-**BIALONCZYK)**

15.30

Consequences of river bank stabilization for the abundance and secondary production of invasive macroinvertebrates in a large river (Sandra HILLE)





RS12 Karst

Monday, July 1 (room: Tuškanac)

11.30

Impacts of calcium carbonate deposition on phosphorus availability in aquatic ecosystems (Jessica CORMAN)

11.45

How will the macroinvertebrates cope with the projected environmental changes (Sara ŠARIRI)

13.30

Interdisciplinary approach for sustainable management of reactivated channels along Skradinski buk tufa barrier (Vesna GULIN)

13.45

Perennial phenology patterns and ecological traits of Dixidae (Insecta, Diptera) in lotic habitats of a barrage lake system (Lara IVANKOVIĆ)





RS13 Lakes, reservoirs and ponds

Tuesday, July 2 (room: Zrinjevac/Tuškanac)

14.15

Global-scale patterns in the seasonality of freshwater lakes (Stephen THACKERAY)

14.30

Drivers of zooplankton assemblages in temporary ponds between different latitude and climate (Maria ŠPOLJAR)

14.45

Whole-lake ecosystem metabolism in two contrasting Estonian lakes (Alo LAAS)

15.30

Nitrogen in Estonian lakes – expected impacts and knowledge gaps (Tiina NÕGES)

15.45

Changes in the macrozoobenthos of a small northern lake from 2002 to 2017 (Alexey MAXIMOV) 16.00

The effect of changes in water residence time and stream inflow temperature on stratification dynamics and mixing in a small temperate lake (Freya OLSSON)

Thursday, July 4 (room: Zrinjevac/Tuškanac)

10.30

Understanding sediment transport processes – coupling erosion with reservoir siltation (Stephan HILGERT)

10.45

Calcite precipitation, a major driver of carbon fluxes in lakes and reservoirs (Hares KHAN)

11.00

A strong variation of δ^{13} C signal over the years in oligotrophic reservoir (Lukáš VESELÝ)

11.15

Zooplankton in Mediterranean ponds - some implication for conservation measures (Tvrtko DRAŽINA)

11.30

Wind and lake characteristics drive algal growth in a large and turbid delta lake (lake Markermeer) after oligotrophication (Harm VAN DER GEEST)

11.45

Phytoplankton community dynamics in Basque reservoirs: pigment and microscopic approaches (Alfredo LLORENTE)





Development of macroinvertebrate based index for monitoring and assessment of Croatian manmade lakes (Zlatko MIHALJEVIĆ)

13.45

Man-made vs. natural lakes: a story told by chironomid community (Valentina DORIĆ)

14.00

Non-invasive phosphate removal from the lake water - principles, efficiency and non-target effects (Agnieszka BAŃKOWSKA-SOBCZAK)

14.15

Effects of increased water level and salinity fluctuations on littoral macroinvertebrate assemblages in the shallow Vrana Lake in Dalmatia (Croatia) (Krešimir ŽGANEC)

14.30

The depth distribution of Oligochaeta (Annelida) assemblages in two barrage lakes (Natalija VUČKOVIĆ)

14.45

Autonomous data intensive monitoring technologies for the calibration and validation of remote sensing models (Carmen CILLERO)

15.30

Human impact intensity affects pond biodiversity along gradients of abiotic conditions (Olivera STAMENKOVIĆ)

15.45

The relationship between epiphytic macroinvertebrate communities and macrophyte biomass (Enis AKAY)

16.00

Cascading effects of fish stock and resource stoichiometry on biodiversity of shallow hypertrophic fishponds (Jaroslav VRBA)

16.15

Mitigation of cold water pollution using a novel thermal curtain: potential impacts on fish populations (Laura MICHIE)





RS14 Large rivers

Tuesday, July 2 (room: Opera)

10.30

Multiple stressor effects on benthic macroinvertebrates in large European rivers - a typologybased evaluation of faunal responses as a basis for future bio-assessment (Patrick LEITNER)

10.45

Processes contributing to the maintenance of CO₂ and CH₄ super-saturation in a large boreal river (Pascal BODMER)





RS15 Invertebrates

Monday, July 1 (room: Opera)

10.30

Ecological and evolutionary physiology of aquatic beetles: coping with multiple stressors in inland saline waters (Susana PALLARÉS) **PhD awardee**

10.45

Do the trait profiles of macroinvertebrates converge across different biogeographic regions? (Stefan KUNZ)

11.00

Stoichiometric traits predict the composition of macroinvertebrate communities: Extending the Growth Rate Hypothesis to species development (Miriam BECK)

11.15

Functional homogenization of aquatic invertebrate communities in central Europe over 25 years (Francesca PILOTTO)

11.30

Benthic grazer and shredder communities suffer from agricultural induced degradation. Does functional redundancy help to keep up ecosystem functioning? (Ulrike HAASE)

11.45

Fine sediment impacts on macroinvertebrates: The current state of knowledge (Morwenna McKENZIE)

13.30

Dams modify energy flow pathways and food-web structure in fluvial ecosystems (Edurne ESTÉVEZ)

13.45

Response of macroinvertebrate drift to hydropeaking – simulations of flow and up-ramping velocities in flume and field experiments (Diego TONOLLA)

14.00

Effect of water level fluctuations on the survival and migrations of macroinvertebrates from freshwater near-shore habitats (Małgorzata POZNAŃSKA-KAKAREKO)

14.15

Re-oligotrophication and invasive species impact littoral invertebrates in a large, pre-alpine lake: long-term isotopic evidence (Maike SABEL)

14.30

Evaluating the taxonomic and functional diversity of stream benthic invertebrate assemblages: morphological versus DNA metabarcoding approaches (Albin MEYER)







Aquatic survey in the driest European country: Building a public aquatic macroinvertebrate DNA barcode reference library for Malta (Zoltán CSABAI)

15.30

Assessing different components of biodiversity across a river network using eDNA (Elvira MÄCHLER)

15.45

eDNA monitoring of benthic invertebrate community and utility for environmental assessment in Japanese rivers (Noriko UCHIDA)

16.00

Caddisfly, the underwater architects of gravel-bed rivers (Richard MASON)

16.15

The role of crenal morphology in shaping water mite (Acari: Hydrachnidia) assemblages in karst springs (Ivana POZOJEVIĆ)

16.30

Coarse detritus and organic matter content in muddy sediments affect the structure of Chironomidae larvae and abundance of Oligochaeta in shallow water bodies (Janusz ŻBIKOWSKI) **16.45**

Selective feeding by grazing mayfly nymphs in headwater streams (Daniela MEWES)





RS16 Macrophytes

Tuesday, July 2 (room: Zrinjevac/Tuškanac)

10.30

Carbon forms, nutrients and water velocity filter hydrophyte and river-bank species differently: A trait-based study (Balázs A. LUKÁCS)

10.45

Functional traits diversity of macrophytes explain nitrogen cycling in wetlands (Maidul I. CHOUDHURY)

11.00

Key factors sustaining alternative stable states between submerged and free-floating plants (Sandor SZABÓ)

11.15

DEMETHER: an integrated tool to model the spatiotemporal dynamics of submerged aquatic vegetation (Diane ESPEL)

11.30

Seasonal and regional variability of carbonate precipitation in charophytes and vascular plants (Andrzej PUKACZ)

11.45

Periphyton contributes to declining charophyte communities in oligo- and mesotrophic temperate hardwater lakes (Sabine HILT)

13.30

Potamogeton meadows support shallow lake benthic communities (J. Arie VONK)

13.45

The role of groundwater supply alongside the riverbed on the development of Water Crowfoot vegetation (Krzysztof SZOSZKIEWICZ)

14.00

Relating response and effect traits in amphibious species contrasting to nutrient levels and light exposure (Paraskevi MANOLAKI)





RS17 Microbial ecology

Friday, July 5 (room: Panorama)

10.30

Unraveling heterotrophic ecosystem function in river networks: interactions among microbial function, community and organic matter (Lukas THUILE BISTARELLI)

10.45

Leaf it up to the microbes? Unravelling litter decomposition in urbanised streams (Jen A. MIDDLETON)

11.00

Influence of N:P ratio and nutrients concentration on intra and extracellular geosmin production (Carmen ESPINOSA ANGONA)

11.15

Effect of salinity on the aquatic and sedimentary microbial communities related to methane and sulphate in Mediterranean lakes (Javier MIRALLES-LORENZO)





RS18 Molecular ecology, phylogeny and evolutionary studies

Friday, July 5 (room: Zrinjevac/Tuškanac)

10.30

From bulk to specific diet source tracking in aquatic food webs – the trophic value of d¹³C and d²H in fatty acids from various sources and consumers (Martin KAINZ)

10.45

A comparison of eDNA sampling with traditional fyke net sampling for European eels, Anguilla anguilla, in Irish lakes (Laura WELDON)

11.00

Isolation of southern Italian basins promoted genetic and morphologic variability in fluviolacustrine barbel populations (Osteichthyes, Cyprinidae) (Serena ZACCARA)

11.15

NGS corroborates cryptic diversity within the Epiros riffle dace (Telestes pleurobipunctatus) (Nuria VIÑUELA RODRÍGUEZ)

11.30

To be or not to be *Padogobius* (Jasna VUKIĆ)





RS19 Plankton

Friday, July 5 (room: Opera)

10.30

Oligotrophication of Lake Balaton over a 20-year period and its implications on the relationship between phytoplankton and zooplankton biomass (Gábor BERNÁT)

10.45

Impacts of the predatory cladoceran Bythotrephes longimanus on zooplankton communities in Austrian Alpine lakes (Radka PTACNIKOVA)

11.00

Molecular gut content analysis of the predatory cladoceran Bythotrephes longimanus in Austrian Alpine lakes (Arthur PICHLER)





RS20 Surpassing aquatic boundaries

Tuesday, July 2 (room: Opera)

11.00

How direct and indirect effects of agricultural stressors propagate from aquatic to terrestrial ecosystems (Moritz LINK)

11.15

Migratory gulls as vectors across the aquatic boundary (Andy J. GREEN)





RS21 Streams

Tuesday, July 2 (room: Ouverture)

10.30

Tributary effects on the ecological responses of a regulated river to an experimental flood (Gabriele CONSOLI)

10.45

Effects of an experimental flood on floodplain microbial assemblages in regulated rivers (Michael DOERING)

11.00

Spates reduce the persistence of macroinvertebrate communities in tropical streams (Adriano S. MELO)

11.15

Composition and functioning of streambed biofilm related to environmental gradients and interacting stressors (Nataša MORI)

11.30

Hydrological events mobilize dissolved organic carbon and soil microbes into small streams (Florian CAILLON)

11.45

Nutrient enrichment enhances seasonal variation of stream diatom communities (Kaisa-Leena HUTTUNEN)

13.30

Evaluating the uncertainty on stream ecological assessment by an invertebrate-based index: effects of index construction and operator skill level (Albin MEYER)

13.45

Food quality drives macroinvertebrate community composition in lowland streams with differing in catchment land-use (Paula C. DOS REIS OLIVEIRA)

14.00

How much of leaf breakdown is attributable to invertebrate ingestion and secondary production? (Timothy MOULTON)

14.15

Night-time measurements highly relevant for assessing stream CO₂ fluxes: a Cross-European study (Katrin ATTERMEYER)

14.30

Decomposition across the riparian-stream meta-ecosystem alters litter processing in streams (Manuela ABELHO)







14.45

Global patterns of organic-matter decomposition in riverine ecosystems demonstrated through peer sourcing (Scott TIEGS)

15.30

Role of aquatic macrophytes on steams waters chemistry (Celine CHARBONNIER)

15.45

Consequences of water diversion and its interaction with chemical pollution on river ecosystem functioning (Ana Victoria PEREZ-CALPE)

16.00

Litter quality modulates effects of dissolved nitrogen on leaf decomposition by stream microbial communities (Mark O. GESSNER)

16.15

Cyprinid fish in stream ecosystems can reduce eutrophication effects (Carola WINKELMANN)

16.30

Ecological role of beavers in the Swiss landscape (Christopher T. ROBINSON)





RS22 Taxomy and systematics

No oral presentations. See poster presentations.





RS23 Urban freshwaters

Thursday, July 4 (room: Maksimir)

10.30

Stream biodiversity and habitat loss in two urban river systems over 40 years (Jon HARDING)

10.45

Impacts of pollution and hydrological stress may cause homogenization in biological communities (Sergi SABATER)

11.00

Urbanization reduces trophic redundancy and alters resource flow through stream food webs (Pavel KRATINA)

11.15

Seasonal variability of phosphorus release from sediments of an urban lake (Agnieszka BAŃKOWSKA-SOBCZAK)

11.30

Assessing the effects of a WWTP effluent on stream food webs through stable isotope analysis (loar DE GUZMAN)

11.45

Combined sewer overflows as a ruling force for the ecological status of small rivers? (Stephan HILGERT)

13.30

High-frequency in situ monitoring of phytoplankton and cyanobacteria in a small urban lake (Brigitte VINÇON LEITE)

13.45

Freshwater biodiversity conservation: the role of artificial ponds in the 21st century (Beat OERTLI)

14.00

Benefits of nature based solutions for urban streams (Tadeusz FLEITUCH)





SS1 Science and management of intermittent rivers and ephemeral streams: a European perspective

Monday, July 1 (room: Crystal ballroom 1)

10.30

Stream drying acceleration in Central Europe: Trends in aquatic and terrestrial communities (Petr PAŘIL)

10.45

Combined impact of stream drying and organic pollution on invertebrate seedbank: Experimental rehydration of dry riverbed sediment (Barbora LOSKOTOVÁ)

11.00

Large-scale distribution of aquatic invertebrates in permanent and intermittent streams (Gemma BURGAZZI)

11.15

Community response to 25 years of intermittent drying in temperate-climate streams with contrasting flow permanence regimes (Romain SARREMEJANE)

11.30

Functional and taxonomic benthic macroinvertebrate diversity among multiple freshwater habitats in an intermittent river network (Mélanie MILIN)

11.45

The effects of riparian zones on carabid beetle assemblages and their functional traits of an intermittent karstic river (Andreja BRIGIĆ)

13.30

What does it mean to be ahead of the curve? Impacts of climate-change driven flow regime change on the life histories of stream invertebrates (Belinda ROBSON)

13.45

Crustacean inflexibility on flow regimes in intermittent spring (Sanja GOTTSTEIN)

14 00

The role of *Gammarus fossarum* populations as an indicator of previous stream drying (Alena DOSTÁLOVÁ)

14.15

Role of the hyporheic zone in mountain streams progressively shifting from naturally perennial to intermittent systems (Maria Cristina BRUNO)

14.30

Flow dynamics and connectivity drive changes in invertebrate composition and traits recovery after experimental floods in temporary streams (Isabel PARDO)





14.45

Multidimensional invertebrate community responses to drying in dynamic river ecosystems (Rachel STUBBINGTON)

15.30

Are all rivers equal? The role of education in attitudes towards temporary and perennial rivers (Catherine LEIGH)

15.45

Stream drying duration affects the recovery of Gammarus pulex (Amphipoda: Gammaridae) from the subsurface sediments of an experimental flume study (Atish N VADHER)

16.00

Spatio-temporal dynamic of taxonomic and functional beta diversity of invertebrate communities in intermittent rivers (Julie CRABOT)

16.15

Structure of benthic macroinvertebrate metacommunities in IRES: comparison of DNA metabarcoding and morphological approaches (Maïlys GAUTHIER)

16.30

Testing metabarcoding for macroinvertebrate biomonitoring in intermittent rivers (Alex LAINI)

16.45

Flow intermittency, biodiversity and food web structure in an alpine fluvial network (Andre R. SIEBERS)

Tuesday, July 2 (room: Crystal ballroom 1)

10.30

Incorporating intermittent rivers and ephemeral streams into global carbon cycle models (Thibault DATRY)

10.45

Transition to intermittency alters leaf litter breakdown processes in streams: How climate change is impacting stream ecosystem function (Nicole CAREY)

11.00

Subsurface zone sustains microbial decomposition during the non-flow period of intermittent rivers (Rebeca ARIAS-REAL)

11.15

SS1_O22_274_Same metabolic resilience, different onset – metabolic implications of a rare drying in temperate river sediment (Michael MUTZ)

11.30

Non-flow drives the pigment structure of autotrophic biofilms in temporary streams (Miriam COLLS)







11.45

Effects of drought on the self-purification capacity of temperate headwater streams (Gabriele WEIGELHOFER)





SS2 Aquatic metacommunities: research and applications

Tuesday, July 2 (room: Crystal ballroom 1)

13.30

Modelling community assembly along spatial and environmental gradients: A metacommunity approach (Martin WILKES)

13.45

Historical legacies and contemporary constrains explain invertebrate and diatom metacommunity structure within a heterogeneous basin (Juan David GONZALEZ-TRUJILLO)

14.00

Long-term changes in metacommunity assembly mechanisms in Mediterranean rivers (Miguel CAÑEDO-ARGÜELLES)

14.15

Niche packing and the mechanisms behind richness variation in stream communities: insights from a tropical-boreal comparison (Victor S. SAITO)

14.30

A metacommunity approach to improve biological assessments in highly dynamic systems (Núria CID)

14.45

Chironomid metacommunity dynamic along the temporal scale: can an appropriate sampling period diminish the influence of spatial processes (Djuradj MILOŠEVIĆ)

15.30

Assessing the importance of metacommunity network structure for the uniqueness and stability of lake communities (Stéphanie GASCÓN)

15.45

Understanding the role of pond network properties and pond characteristics on beta diversity patterns (Irene TORNERO)

16.00

Aquatic mollusc metacommunity structuring in lentic habitats of two regions differing in trophy level (Erika LORENCOVÁ)

16.15

Assessing the assembly drivers of seasonal succession and wildfire effect on a temporary pond metacommunity through traits selection (David CUNILLERA-MONTCUSÍ)

16.30

CONNECTing high frequency in situ measurements with remote sensing to monitor phytoplankton dynamics along river-connected lake chains (Christine KIEL)





SS3 Hydrology, biogeochemistry and ecology of mountain freshwaters

Thursday, July 4 (room: Crystal ballroom 2)

10.30

Physical habitat alterations in Alpine running waters: study cases from NW Italy and a new initiative (Stefano FENOGLIO)

10.45

Ecological and sedimentological effects of an experimental flood (Kate MATHERS)

11.00

Ebb and flow: macroinvertebrate resilience to varying hydropeak frequency (Claire AKSAMIT)

11.15

Temporal shifts in floodplain macroinvertebrate metacommunity structure (Pierre CHANUT)

11.30

Characterization of alpine habitats from threatened Dragonflies to promote a management adapted to climate warming (Marie LAMOUILLE-HEBERT)

11.45

A global synthesis of aquatic biodiversity responses to glacier retreat (Sophie CAUVY-FRAUNIE)

13.30

Metabolic regimes of Alpine streams (Marta BOIX CANADELL)

13.45

Evasion fluxes of carbon dioxide from turbulent headwater streams draining the world's mountains (Åsa HORGBY)

14.00

Whole-lake metabolism along an alpine dissolved organic carbon gradient (Marcus KLAUS)

14.15

Reduced glacial influence mediates periphyton composition and quality in alpine streams (Georg H. NIEDRIST)

14.30

Glacier meltwater inputs affect feeding habits of alpine stream macroinvertebrates (Mirela SERTIĆ PERIĆ)

14.45

Decreasing glacier cover drives predictable successional changes in the structure and allometry of river food webs (Sarah C FELL)

15.30

Characterisation of a rock glacial stream under a multitrophic approach (Stefano BRIGHENTI)







15.45

Replacement of native forest by exotic forest plantations in Chile: Impacts on the functioning and structure of mountain river ecosystems (Francisco J. PEÑAS)

16.00

Loss of Alpine grasslands and pastures threatens taxonomic and functional diversity of stream benthic macroinvertebrates (Alberto SCOTTI)





SS4 10th UAMRICH (Use of algae for monitoring rivers and comparable habitats)

Thursday, July 4 (room: Opera)

10.30

A comparison of benthic-algae-based environmental assessments in the European Union and the United States (Marco CANTONATI)

10.45

The search for the perfect river (Geoff PHILLIPS)

11.00

European river ecological assessment: What next? (Sandra POIKANE)

11.15

Optimization of reference taxonomy, OTU grouping, and amplicon choice in algal bioassessments using DNA metabarcoding (Nicholas SCHULTE)

11.30

Comparison of ecological status classification systems based on diatoms in north western Spanish siliceous basins (Lorena GONZÁLEZ-PAZ)

11.45

Water scarcity in Alpine streams: how diatoms respond to lentification and rewetting phases (Francesca BONA)

13.30

Looking for ecological indicators in springs in the Alps and Dinarides with special attention to the ophiolitic substratum (Jasmina KAMBEROVIĆ)

13.45

Unveiling the hidden and understudied biodiversity of benthic algae in Egyptian desert springs and other inland habitats using a polyphasic approach (PhyBiO Project) (Abdullah A. SABER)

14.00

Algae beads as a tool for the comparison and intercalibration of chlorophyll a measurements (Detlev LOHSE)





SS5 Understanding cross-habitat linkages between stream and riparian zones to optimize management of biodiversity and ecosystem services

Monday, July 1 (room: Panorama)

10.30

Riparian buffer properties, cross-habitat connectivity, and biodiversity and ecosystem functioning in stream-riparian networks: Introducing CROSSLINK (Brendan McKIE)

10.45

Novel biomarkers reveal landscape influences on linkages between aquatic and terrestrial food webs (Francis John BURDON)

11.00

Tracking aquatic subsidies in terrestrial food webs (Ellinor RAMBERG)

11.15

Study of aquatic-terrestrial predator-prey relationships: How does agriculture alter the quantity and quality of stream exports? (Katharina FRISCH)

11.30

Diving into murky waters: effects of brownification on boreal stream ecosystems (Timo MUOTKA)

11.45

Modelling the effect of woody riparian vegetation on the diversity and composition of stream macroinvertebrates and spiders in the Zwalm River basin (Belgium) (Peter GOETHALS)

13.30

Effects of contaminants across ecosystem boundaries: Concept and experimental design (Mirco BUNDSCHUH)

13.45

Stressors across boundaries – The propagation of aquatic stressors to terrestrial ecosystems (Ralf B. SCHÄFER)

14.00

Microplastics in benthic macroinvertebrates (Emilie KALLENBACH)

14.15

The ecological impacts of warming and urbanisation on freshwater microbial communities (Kate RANDALL)

14.30

Impacts of agricultural land use on stream macroinvertebrates and ecosystem processes in three contrasting European catchments (Geta RISNOVEANU)

14.45

Using an easy standardized material as functional indicator of environmental stress in stream ecosystems (Nikolai FRIBERG)





Tuesday, July 2 (room: Crystal ballroom 2)

14.30

Ecosystem services in riparian areas: current structure and knowledge needs for better decision making (Constantin CAZACU)

14.45

Smarter riparian buffer zones to reduce greenhouse gas emissions from stream ecosystems after forest harvesting: hypotheses, data and research needs (Marcus KLAUS)

15.30

Can riparian buffers mitigate effects of environmental stress on fish communities in urban streams? (Benjamin KUPILAS)

15.45

Effects of woody riparian buffers on the diversity and functional trait composition of macroinvertebrates in an agricultural catchment (Jasmina ŠARGAČ)

16.00

A landscape-scale field experiment in six rivers shows how in-channel retention boosts detrital resources and invertebrate species diversity (Barbara J. DOWNES)

16.15

Spatial scale and the responses of riparian and instream invertebrate assemblages to forest cover and agricultural land use (Richard JOHNSON)

16.30

Towards an optimal allocation of riparian forest at catchment scale? (Felix WITING)





SS6 Linking natural and social science in freshwater ecosystems

Monday, July 1 (room: Maksimir)

10.30

Using citizen science for freshwater monitoring, management and impactful research: Lessons from FreshWater Watch (Isabel BISHOP)

10.45

Alpine rivers ecosystem services: exploring stakeholders' views (Gabriela COSTEA)

11.00

Urban Algae: ecological status of urban ponds and the public perception of their ecosystem services (Cleo N. STRATMANN)

11.15

Insights and learnings from social media data analysis for ecosystem services of river restoration (Nina KAISER)

11.30

Cultural values for freshwater management: learning from New Zealand (Simone Daniela LANGHANS)

11.45

A transdisciplinary research approach for the management of a dry, salinized river-basin in Morocco (Elisabeth BERGER)

13.30

Is Danube Delta Biosphere Reserve (Romania) a hot spot for Harmful Algal Blooms? (Maria lasmina MOZA)





SS7 Linking habitat heterogeneity, biofilm diversity and biogeochemistry across spatiotemporal scales

Monday, July 1 (room: Maksimir)

14.00

Bottom-up control of the top-down control: biofilm's food quality alters the foraging behavior of grazers (Alexander T. L. VOSSHAGE)

14.15

The functional importance of shrimp and fish in stream nutrient remineralization (Eugenia ZANDONÀ)

14.30

Direct and indirect effects of hydraulics on nutrient uptake by biofilms in gravel bed streams (Christine ANLANGER)

14.45

Variability of functional stream biofilm recovery at the habitat scale after disturbances from drying and sediment transport (Anna OPREI)

15.30

Major forces shaping periphyton in tufa-depositing karstic freshwaters (Renata MATONIČKIN KEPČIJA)

15.45

Macroplastics in rivers: threat or opportunity for aquatic microbes? (Joan ARTIGAS)

16.00

Light and nutrient availability effects on organic matter quality and associated microbial community of macrophytes (Mandy VELTHUIS)





<u>SS8 From source to sea – characterization and utilization of organic matter from</u> different sources along the aquatic continuum

Thursday, July 4 (room: Maksimir)

14.15

A direct comparison of carbon processing in river and marine habitats (André FRAINER)

14.30

Biodiversity-mediated constraints on leaf litter decomposition across a river network (Rubén DEL CAMPO)

14.45

Autochthonous organic material, not organic matter from the watershed, compose fluffy sediments of shallow Aquitaine lakes (Pierre ANSCHUTZ)

15.30

In-situ and laboratory DOM addition experiments demonstrate the effects of DOM quality on DOM degradation and the activity of benthic biofilms (Gabriele WEIGELHOFER)

15.45

Assessing stoichiometric control of nitrate and phosphate uptake by different DOC sources at laboratory-microcosm and fluvial-network scale (Daniel GRAEBER)

16.00

The olfactory landscape of a river network: Dissolved organic matter guiding salmon migration (Beatriz E. NORIEGA-ORTEGA)

16.15

Spatial variation in organic matter concentration and quality in the Halladale catchment, N Scotland (Amy PICKARD)

16.30

Dissolved CO₂ – seasonal and spatial variations throughout a rivers catchment (Peter GILBERT)





SS9 Research needs for European water and nature directives

Thursday, July 4 (room: Ouverture)

15.30

Research needs for the Water Framework Directive (Wouter VAN DE BUND)

15.45

A new broad typology for rivers and lakes in Europe: development and application for large-scale environmental assessments (Anne LYCHE SOLHEIM)

16.00

Clues for the establishment of reference conditions for the assessment of the ecological status of lakes under "special" circumstances: the exception or the rule? (Antonio CAMACHO)

16.15

Establishing reference conditions and ecological status in Mediterranean rivers: a problem to solve (Ana M. PUJANTE)

16.30

Mapping and modelling riparian forest distribution and composition: Meeting WFD and HD requirements (José BARQUÍN)

Friday, July 5 (room: Ouverture)

10.30

Applicability of DNA-based identifications for the European Water Framework Directive: a pilot DNA metabarcoding study for ecological status assessments (Raquel GONZÁLEZ)

10.45

Optimizing freshwater fish detection with eDNA metabarcoding (Ana Filipa FILIPE)

11.00

Preliminary results of the use of standard bioassays as a complementary tool to ecological quality assessments in reservoirs (Fábio S. MARTINS)

11.15

How the ecological and conservation status assessed according to the Habitats and Water Framework Directives can be related to the climatic regulatory role in Wetlands (Daniel MORANT)





SS10 Balkan rivers, be dammed!

Thursday, July 4 (room: Opera)

15.30

How hydropower dams alter the flow regimes of Balkan rivers (Helena HUĐEK)

15.45

Regional controls on photosynthesis-irradiance relationships of benthic algae in the Vjosa river network (Thomas FUSS)

16.00

The last hideout: abundance patterns of the not-quite-yet extinct mayfly Prosopistoma in the Vjosa catchment (Jan MARTINI)

16.15

Science support required for conserving Balkan rivers (Fritz SCHIEMER)





SS12 Mesocosm approaches to ecosystem-scale questions in freshwaters

Monday, July 1 (room: Ouverture)

13.30

AQUACOSM & MESOCOSM.EU: networks of experimental aquatic mesocosm facilities offering opportunities to co-design ecosystem processed-based studies (Jens Christian NEJSTGAARD)

13.45

Mesocosms are an excellent tool to show climate change impacts on aquatic ecosystems (Lisette Nicole DE SENERPONT DOMIS)

14.00

Top-down control modulates interactions between primary producers in lakes undergoing eutrophication and browning: a mesocosm modelling study (Gregorio A. LÓPEZ MOREIRA M.)

Effects of skyglow on lake phytoplankton: insights from an ecosystem-scale enclosure experiment (Susanne STEPHAN)

14.30

Rapid automated assessment of fine-scale zooplankton distributions using a low-cost, handheld in situ imager and deep learning (Tim J. W. WALLES)

14.45

First in-situ mesocosms experiment for investigating impacts of microplastics on littoral food web (Meryem BEKLIOĞLU)

15.30

How climate change enhances nanoparticle toxicity towards freshwater biofilms – A mesocosms study (Berta BONET)

15.45

Hot, dry, and deadly: climate warming, water abstraction and neonicotinoid exposure determine stream macroinvertebrate community dynamics (Samuel J. MACAULAY)

16.00

Short-term exposure to wildfire ash affects behaviour and condition of a potamodromous cyprinid fish, the Iberian barbel (Luciobarbus bocagei) (Maria Teresa FERREIRA)

16.15

The hyporheic zone as an invertebrate refuge during a fine sediment disturbance (Tory MILNER)

A new mesocosm-based field station in Western Italian Alps: The Alpine Stream Research Center ALPSTREAM (Stefano FENOGLIO)





SS13 Spring habitats: research, assessment tools and conversation efforts

Friday, July 5 (room: Maksimir)

10.30

Anthropogenic modification of spring habitats: current research, assessment tools and conservation efforts (Stefanie VON FUMETTI)

10.45

Macroinvertebrates of post-mining calcareous brooks: comparison with natural calcareous spring brooks (Martina POLÁKOVÁ)

11.00

Water mites (Acari: Hydrachnidia) in springs – A highly diverse taxon with unexpected dispersal abilities (Lucas BLATTNER)

11.15

Comparison of Odonata diversity and assemblage structure among perennial and intermittent springs: a case study in central Montenegro (Ana SAVIĆ)

11.30

Homology-driven Proteome Characterization of the cold-stenothermal freshwater Species Crunoecia irrorata acclimatized to stressful thermal Conditions (Joshua Niklas EBNER)







POSTER PRESENTATIONS

- by sessions -









PhD awardees

- 1. Migratory waterbirds as key vectors of dispersal for plants and invertebrates case studies from Europe (Ádám LOVAS-KISS)
- 2. Effects of artificial light at night on benthic primary producers in freshwaters (Maja GRUBIŠIĆ)
- 3. Ecological and evolutionary physiology of aquatic beetles: coping with multiple stressors in inland saline waters (Susana PALLARÉS)





RS1 Algae

- **RS1_P1_**Adhesion behavior of algal cells under stress in laboratory conditions: electrochemical approach (Nives NOVOSEL)
- **RS1_P2_**Phosphorus removal by periphyton developed on the artificial substrate in the hypereutrophic pond (Marija PEĆIĆ)
- **RS1_P3_**Adaptability of tropical cyanobacterium *Raphidiopsis raciborskii* to thermal conditions in the temperate climate zone (Agnieszka BRZOZOWSKA)
- RS1_P4_Motility as an indicator of algal cell stres in modified batch cultures (Petar ŽUTINIĆ)
- **RS1_P5_***Watanabea acidotolerans*: A new coccoid green alga dwelling in pH < 3 freshwaters of two continents (Dovilė BARCYTĖ)

RS2 Climate change and freshwater ecosystems

- **RS2_P1_**The charophyte decline and recovery in Lake Lednica in response to four decades of changes in water fertility and hydrometeorological conditions (Mariusz PEŁECHATY)
- **RS2_P2_**Importance of temperature on the growth of native and alien cyanobacteria strains from temperate lakes (Jūratė KASPEROVIČIENĖ)
- **RS2_P3_**North Atlantic Oscillation Position influences waterfowl abundance in a Mediterranean wetland (Jorge J. MONTES-PÉREZ)
- **RS2_P4_**Groundwater carbon within a boreal catchment spatiotemporal variability of a hidden aquatic carbon pool (Anna NYDAHL)

RS3 Conservation

- **RS3_P1_**Small peripheral basins sometimes means a lot: the implications for conservation of fish communities (Aneta BYLAK)
- **RS3_P2_**Lessons on riverine fish conservation learned by analysing population functions on the range edge (Aneta BYLAK)





RS4 Ecological modelling

- **RS4_P1_**Differences in the structural and functional organization of macroinvertebrate communities in the sub-basins of the Tisza River (Eszter Á. KRASZNAI-K.)
- RS4_P2_Modelling of ecological status of lakes using artificial neural networks (Daniel GEBLER)
- **RS4_P3_**Modelling ecosystem metabolism at the scale of entire river networks (Matthew V. TALLUTO)

RS5 Ecotoxicology and stress responses

- **RS5_P1_**Comparison of metal accumulation efficiency in acanthocephalans, gammarids and fish under the impact of municipal and technological wastewaters (Vlatka FILIPOVIĆ MARIJIĆ)
- **RS5_P2_**Metal bioaccumulation in the gills of Prussian carp (Carassius gibelio) from the Ilova River as the indicator of waterborne metal exposure (Zrinka DRAGUN)
- **RS5_P3_**Influence of repeated pulsed pesticide exposures on the biochemical biomarkers in *Lemna minor* (Marko MOSLAVAC)
- **RS5_P4_**Combining metabarcoding and metabolomics to gain insight into the interactive effects of microplastics and emerging contaminants on river biofilms (Ferran ROMERO)

RS6 Fish (and other vertebrate) biology

- **RS6_P1_**Demographics and survival in the European pond turtle *Emys orbicularis*: a 31–year study (Dani BOIX)
- **RS6_P2_**Peculiar occurrence of *Cobitis bilineata* Canestrini, 1866 and *Sabanejewia larvata* (De Filippi, 1859) (Cobitidae, Actipteri) in Danube basin in Croatia (Ivana BUJ)
- **RS6_P3_**Seasonal variability in perch diet in the northern lakes (Lake Krivoe, north Russian Karelia) (Nadezhda BEREZINA)
- **RS6_P4_**Has the racer goby *Babka gymnotrachelus* (Kessler, 1857) failed to invade the Danube tributaries, the Sava and Drava Rivers? (Perica MUSTAFIĆ)
- **RS6_P5_**In the eyes of the beholder-Evolution of vision and trophic ecology in the elephant fishes (Mormyridae) (Gina Maria SOMMER)





RS7 Freshwater science in policy, management, monitoring and restoration

RS7_P1_First empirical study of freshwater microplastics in West Africa: a comparison with a European freshwater system (Sonja M. EHLERS)

RS7 P2 EU LIFE project "ALGAE – ECONOMY-BASED ECOLOGICAL SERVICE OF AQUATIC ECOSYSTEMS" (AlgaeService for LIFE) – filling gaps in a circular economy (Jūratė KASPEROVIČIENĖ)

RS7_P3_Characterizing ecocide from the freshwater perspective (Paula C. DOS REIS OLIVEIRA)

RS7_P4_Species origin metrics in biotic integrity indices: a global review (Renata RUARO)

RS7 P6 The impact of industrial and agricultural activities on the concentration of sulphates and chlorides in surface water of border rivers (Małgorzata GAŁCZYŃSKA)

RS7_P7_Algal-based assessments of deep lakes - does the metalimnion matter? (Agnieszka PASZTALENIEC)

RS7 P8 Phytoplankton community in two slow flowing hypereutrophic rivers - ecological traits and potential toxic threat to environment (Igor STANKOVIĆ)

RS7_P9_Hypolimnetic withdrawal and treatment as a new method of lake restoration and nutrient recycling (Soila SILVONEN)

RS8 Wetlands, brackish and coastal ecosystems

RS8_P1_How decomposition of organic matter and invertebrate communities respond to agricultural wastewater in constructed wetlands? (Margarita MENENDEZ)

RS8 P2 Ecosystem metabolism of Mediterranean coastal lagoons and their main input canals (Maria ANTON-PARDO)

RS8 P3 Identifying physical and chemical drivers of daily ecosystem metabolism in confined coastal water bodies (Maria BAS-SILVESTRE)

RS8_P4_Floating macrophyte mat as a playground for freshwater invertebrates (Viktorija ERGOVIĆ)





RS9 Hydromorphology, hydrology, hydrogeology, hydrochemistry

RS9_P1_Analysis of long-term trends in water quality data of the Plitvice Lakes National Park (Maja VURNEK)

RS9 P2 Evidences of diffuse water and nitrate input via river-groundwater interactions in a regulated river: flood irrigation as main driver? (Edoardo SEVERINI)

RS10 Interspecies interactions

RS10 P1 Physiological responses of aquatic invertebrates to acute and chronic predation risk (Hanna KLETKIEWICZ)

RS10_P2_Diversity and temporal shifts of the bacterial community associated with an Anabaena macrospora bloom (Clarisse MALLET)

RS10 P3 The potential of fish vs. waterfowl interaction in management of eutrophic water bodies (Ilkka SAMMALKORPI)

RS11 Invasive species

RS11 P1 Effects of habitat modification and invasive species on macroinvertebrate assemblages in the section of the Drava River between two reservoirs (Tomislav KRALJ)

RS11_P2_Taxonomical and functional diversity patterns of native and exotic fish species (Anna GAVIOLI)

RS11 P3 Delayed parasite occurrence in a persistent fish invader – prevalence of Liquia pavlovskii in monkey gobies (Neogobius fluviatilis) in Lake Balaton (Zoltán VITÁL)

RS11_P4_Long-term fish monitoring underlines a rising tide of temperature tolerant, rheophilic, benthivore and generalist exotics, irrespective of hydrological conditions (Mattia LANZONI)

RS12 Karst

No posters.





RS13 Lakes, reservoirs and ponds

RS13_P1_Effects of past land use on biogeochemical functioning of shallow lakes at the multi-decadal scale: example from Landes lakes (SW France) (Celine CHARBONNIER)

RS13_P2_Interacting effects of thermal and nutrient pollution on ecological processes at hydroelectric reservoir Moste (the Sava River, Slovenia) (Tatjana SIMČIČ)

RS13_P3_Aerobic respiration and production in a Mediterranean stratified reservoir (Juan MONTES-PÉREZ)

RS13_P4_Vertical distribution of rotifers in three deep Mediterranean lakes (Tvrtko DRAŽINA)

RS13_P5_Stratification effects on the physical-chemical water quality of Abegondo – Cecebre reservoir (Carmen CILLERO)

RS14 Large rivers

RS14_P1_Niche position and niche breadth of phytoplankton functional groups in fluvial ecosystems (Gabor VARBIRO)

RS15 Invertebrates

RS15_P1_Freshwater macroinvertebrate barcoding in Cyprus: First steps and new records (Athina PAPATHEODOULOU)

RS15 P2 Mated or virgin female: a new sexual object is of male interest (Miloš BUŘIČ)

RS15_P3_Risks and side effects: Structural and functional responses of aquatic macroinvertebrate communities to restoration mediated alterations in a small lowland stream (Tamás BOZÓKI)

RS15_P4_DNA knowledge gaps in reference databases about European freshwater macroinvertebrates (Tommaso CANCELLARIO)

RS15_P5_Effects of fine woody debris on macroinvertebrate communities in littoral zones of undeveloped lakes (Magdalena CZARNECKA)

RS15_P6_Microcalorimetry: a powerful tool to investigate stoichiometric constraints on small ectotherms (Thomas RUIZ)



RS15_P7_Does the supplemental feed type used for carp nutrition influence on mentum deformities in *Chironomus plumosus* larvae? (Ivana ŽIVIĆ)

RS15_P8_Effects of temperature and species on the duration of post-mating spermatophore storage of the freshwater crayfish (Hamid NIKSIRAT)

RS15_P9_Quantifying the biotic and abiotic controls on river bank burrowing by invasive signal crayfish (*Pacifastacus leniusculus*) (Harry SANDERS)

RS15_P10_Detection of Cordulegaster (Insecta: Odonata) species via eDNA (Judit FEKETE)

RS16 Macrophytes

RS16_P1_Carbon deposition in Chara-lakes (Małgorzata STRZAŁEK)

RS16_P2_Effect of invasive hydrophytes on lake benthic biogeochemistry (Pierre ANSCHUTZ)

RS16_P3_Phytosociological analysis of the aquatic macrophyte vegetation of the main Greek freshwater lakes (Dimitrios ZERVAS)

RS16_P4_Growth rate inhibition and recovery potential of *Lemna mi*nor after pulsed isoproturon exposures (Marko MOSLAVAC)

RS16_P5_Effects of selected chemical substances used to phosphorus inactivation on the growth of Hydrocharis morsus-ranae (Małgorzata GAŁCZYŃSKA)

RS16_P6_Charophytes in a eutrophic world: variability, performance, potential for bioindication (Agnieszka KOLADA)

RS16_P7_The Balkan macrophyte index (BMI): a new tool for assessing the ecological status of lakes (Aleksandra MARKOVIĆ)

RS17 Microbial ecology

RS17_P1_Does the presence of microplastics affect microbial communities in stream-bed sediments? (Tjaša MATJAŠIČ)

RS17_P2_Developing microbial indicators for the health of aquatic systems (Jen A. MIDDLETON)



RS17_P3_Do leaf litter decomposers control benthic algae production and community structure? Insights from an outdoor mesocosm experiment (Joey ALLEN)

RS17_P4_Where two worlds meet: marine sediments in a dammed freshwater lake (Harm VAN DER GEEST)

RS17_P5_Diversity and ecological preference of ciliates assemblage in a freshwater karstic river (Antonija KULAŠ)

RS17_P6_Cuticle-associated microbial communities of freshwater crayfish *Astacus leptodactylus* are affected by water temperature and the presence of pathogen *Aphamyces astaci* (Marija VUK)

RS17_P7_Distribution and abundance of methagenic and methatrophic microorganisms across European streams (Pascal BODMER)

RS17_P8_Phyto- and bacterioplankton production in macrophyte dominated waters (Hungary) (Nóra SZABÓ-TUGYI)

RS18 Molecular ecology, phylogeny and evolutionary studies

RS18_P1_Genetic structure of *Phoxinus* spp. (Teleostei: Cyprinidae) in western Po River basin identified as locus typicus of *Phoxinus lumaireul* (Schinz, 1840) (Vanessa DE SANTIS)

RS18_P2_The enigma of Barbus euboicus resolved (Eva KYRALOVÁ)

RS19 Plankton

RS19_P1_How does phytoplankton overcome carbon limitation in acidic mining lakes – case study *Autumnella lusatica* sp. nov. (Brigitte NIXDORF)

RS19_P2_Different sources of the same fatty acids in lake zooplankton – a compound-specific stable isotope approach (Richard ADAMS)

RS19_P3_Life-history traits of *Daphnia* spp. in fishponds – the life between hypertprophy and overstocking (Jana ZEMANOVA)

RS20 Surpassing aquatic boundaries

RS20_P1_Trait-based approaches: a common framework for freshwater and marine ecologists (Martin LAVIALE)





RS21 Streams

- **RS21_P1_**Importance of essential nutrients from different carbon sources for the food chain structure of a headwater stream (Tiphaine LABED-VEYDERT)
- **RS21_P2_**Annual variation in water quality parameters on Plitvica stream, Plitvice Lakes National Park (Tea FRKETIĆ)
- **RS21_P3_**Managing the small stream network for improved water quality, biodiversity and ecosystem services protection (SSNet) (Mary KELLY-QUINN)
- **RS21_P4_**What if sand could walk? Sediment transport by Glossosomatidae caddisfly larvae in gravel-bed streams (Richard MASON)

RS22 Taxomy and systematics

- RS22_P1_Diversity of *Phoxinus* in Greece: insights from the genetic data (Dovile BARCYTE)
- **RS22_P2_**Morphometric differences of distinct Carpathian gudgeon (*Gobio*) haplogroups (Péter TAKÁCS)
- **RS22_P3_**Are minute moss beetles (Coleoptera: Hydraenidae) still overlooked beetles in Croatia? (Vlatka MIČETIĆ STANKOVIĆ)

RS23 Urban freshwaters

- **RS23_P1_** A simple molecular biology method to detect cyanobacteria blooms in a small urban lake (Lenora N. LUDOLF GOMES)
- **RS23_P2_**Resazurin push-and-pull tests to determine the impact of dynamic flow on microbial activity in an urban river (Hanna SCHULZ)
- **RS23_P3_**Anthropogenic litter supports distinctive macroinvertebrate communities in urban streams (Hazel WILSON)





SS1 Science and management of intermittent rivers and ephemeral streams: a European perspective

- **SS1_P1_**Ecological responses to an experimental increase of flow intermittency in an alpine stream (Benjamin MISTELI)
- **SS1_P2_**Effects of drought length on the hyporheic microbial processes of intermittent streams (Laura COULSON)
- **SS1_P3_**Stream drying and stream pollution: similarities in impact on benthic invertebrates (Michal STRAKA)
- **SS1_P4_**An invertebrate-based index to characterize ecological responses to flow intermittence in rivers (Judy ENGLAND)
- **SS1_P5_**Advancing metacommunity ecology in intermittent rivers to improve their conservation and management: the MECODISPER project (Miguel CAÑEDO-ARGÜELLES)
- **SS1_P6_**Significance of intermittent rivers and ephemeral streams in agricultural and natural landscape of Slovakia and Portugal (Tatiana KALETOVA)
- **SS1_P7_**Are all intermittent streams the same? Multiple hydrological components driving invertebrate community changes (Rebeca ARIAS-REAL)

SS2 Aquatic metacommunities: research and applications

- **SS2_P1_**Chironomid metacommunity patterns in intermittent rivers and ephemeral streams (Djuradj MILOŠEVIĆ)
- **SS2_P2_**Fish metacommunities in stream network: Do spatial processes influence the bioassessment metrics? (Milica STOJKOVIĆ PIPERAC)

SS3 Hydrology, biogeochemistry and ecology of mountain freshwaters

SS3_P1_Peatlands on Semolj (Montenegro) and their environmental and geological features (Nada BUBANJA)





SS4 10th UAMRICH (Use of algae for monitoring rivers and comparable habitats)

- **SS4_P1_**Comparison of existing pipelines handling species assignation and OTUs classification for freshwater and marine diatoms in Europe within the framework of water quality assessment (Bonnie BAILET)
- SS4_P2_Diatoms as indicators of water quality in small watercourses of the Magura National Park (Lower Beskid, South-East Poland) (Aleksandra ZGRUNDO)
- SS4 P3 Longitudinal patterns of epiphytic diatom communities from a small river in the African Eastern Rift Valley (Kenya) (Alex BORRINI)
- SS5 Understanding cross-habitat linkages between stream and riparian zones to optimize management of biodiversity and ecosystem services
- SS5 P1 Transfer of essential lipids from aquatic to terrestrial ecosystems (Margaux MATHIEU-RESUGE)
- SS5_P2_Importance of natural sediment regime on cross-ecosystem fluxes (Carmen KOWARIK)
- SS5_P3_Relationships between riparian properties, land use and the composition and diversity of riparian macroinvertebrates in a catchment impacted by agriculture (Cristina POPESCU)
- **SS5 P4** Variation in benthic diatom communities in urban streams and the role of riparian buffers (Petra Thea MUTINOVA)
- SS6 Linking natural and social science in freshwater ecosystems

No posters.

- SS7 Linking habitat heterogeneity, biofilm diversity and biogeochemistry across spatiotemporal scales
- SS7 P1 Hydrological history impact on streambed microbes: insights from a multi-site study in the Mediterranean basin (Giulia GIONCHETTA)
- **SS7_P2_**Characterization of diatom adhesion properties on different substrates: from population to individual scale (Martin LAVIALE)





<u>SS8 From source to sea – characterization and utilization of organic matter from</u> different sources along the aquatic continuum

SS8_P1_Anthropogenically altered flow affects compositional variance of dissolved organic matter (Selin KUBILAY)

SS9 Research needs for European water and nature directives

- **SS9_P1_**Chemical discontinuity in the Vjosa river network (Franziska Ellen WALTHER)
- **SS9_P2_**Who is the better candidate? Macroinvertebrates and diatoms for ecological status assessment of Sava Lake (Serbia) (Katarina STOJANOVIĆ)
- **SS9_P3_**Searching for common macroinvertebrate metrics for assessment of ecological status of Western Balkan lakes (Katarina STOJANOVIĆ)
- **SS9_P4_**Freshwater habitats in Greece: crosswalks between the Habitats and Water Framework Directives (Dimitrios ZERVAS)

SS10 Balkan rivers, be dammed!

- **SS10_P1_**River barriers in the Balkan region: validation of existing database (Helena HUĐEK)
- **SS10_P2_**Baseline conditions of greenhouse gas evasion from the undammed Vjosa river network (Sonia HERRERO ORTEGA)
- **SS10_P3_**Environmental status of Western Balkan rivers threatened by hydropower construction a preliminary assessment (Krešimir ŽGANEC)
- **SS10_P4_**River Intellectuals: connecting scientists and conservationists for free and wild rivers in the Balkans (Selin KUBILAY)
- **SS10_P5_**Morphological changes in two large river catchments of Kosovo and Albania in the last 50 years (David FARÒ)
- **SS10_P6_**Grassroots ecology for Balkan rivers a minimum-funds research network to produce region-wide evidence of hydropower impacts (Gabriel SINGER)





SS12 Mesocosm approaches to ecosystem-scale questions in freshwaters

SS12_P1_AQUACOSM Research Infrastructure Network offers Transnational Access opportunities to European Aquatic Mesocosm Facilities (Stella A. BERGER)

SS12_P2_Use of semiartificial flumes in stream ecology: an overview of simulations to assess anthropic impacts on alpine streams (Maria Cristina BRUNO)

SS13 Spring habitats: research, assessment tools and conversation efforts

SS13_P1_Mayflies in karst springs: species composition and relation to environmental factors (Marina VILENICA)